

## **ABSTRACT**

Studies have examined the role of male involvement in HIV counseling and testing within prevention of mother-to-child transmission (PMTCT) programs, but there is no corresponding data on male involvement in infant and young child feeding (IYCF) decision-making within the context of HIV. We explored wives' and husbands' perceptions of their roles in feeding decision-making and practice in the context of Malawi's Option B+ PMTCT program through in-depth interviews conducted in the catchment areas of 2 urban and 2 rural government clinics in Lilongwe District. Participants were 15 wife-husband pairs (interviewed separately), where the wife was  $\geq 18$  years, HIV-positive, and had a child  $< 24$  months. The interviews were analyzed using thematic content analysis. Husbands were generally less well informed about IYCF recommendations than their wives, who were advised on IYCF during antenatal and PMTCT clinic visits. Husbands were unable to accompany their wives to clinic appointments and usually deferred to their wives in IYCF decision-making. Wives were responsible for caring for children, including breastfeeding and feeding complementary foods. Husbands provided monetary support for purchasing food and offered verbal support to encourage their wives to continue with recommended IYCF practices. Many husbands found it difficult to support adequate complementary feeding due to household food insecurity. In conclusion, Malawian husbands and wives reported highly gendered roles in relation to IYCF decision-making and practice in the context of HIV, but women were interested in having more involvement in IYCF by their husbands. To address this gap, strategies should be tested for getting messages on IYCF to husbands through male-friendly radio and community-based programs or by encouraging them to participate in PMTCT visits with their wives.

## **INTRODUCTION**

The World Health Organization estimates that without interventions, 15-25% of babies born to HIV-infected mothers will become infected post-natally (World Health Organization 2016). However, with appropriate interventions, such as antiretroviral therapy (ART), transmission from mother to child through breast milk can be reduced to 2% (Saadeh, Henderson, and Vallenas 2005). Prevention of mother-to-child HIV transmission (PMTCT) programs in nearly all countries with high HIV prevalence are now implementing Option B+ (Interagency Task Team 2016). PMTCT Option B+ provides lifelong antiretroviral therapy (ART) to HIV-infected pregnant and breastfeeding women (Kieffer et al. 2014) and encourages exclusive breastfeeding (EBF) for the first six months of life and continued breastfeeding until 12 months (World Health Organization Regional Office for Africa 2014). The Ministry of Health in Malawi has modified that recommendation to extend the time of breastfeeding until 24 months (World Health Organization Regional Office for Africa 2014). It is important for HIV-infected women to exclusively breastfeed because mixed feeding during the first 6 months is associated with higher rates of HIV transmission (Coutsoudis et al. 2001; Fletcher, Ndebele, and Kelley 2008). Continued breastfeeding beyond 6 months is also important to limit child morbidity and mortality (Victora et al. 2006) .

Support for exclusive breast feeding, continued breastfeeding and other optimal infant and young child feeding (IYCF) practices is needed to ensure that HIV infected women implement them. Relatives such as husbands and grandmothers, often influence a woman's IYCF practices, their understanding of optimal feeding

practices, and support for optimal IYCF behaviors (Aubel 2012; Bezner Kerr et al. 2008; Thet et al. 2016; Chinkonde, Hem, and Sundby 2012; Muluye et al. 2012; Thairu et al. 2005a) . Their involvement can play an important role in a woman's decisions to follow the recommendations.

In the literature involving low- and middle-income countries, there are mixed findings regarding the primary decision maker in relation to infant and young child feeding practices. In many parts of the world, women are considered the primary caretakers of infants and young children (Kerr, Berti, and Chirwa 2007; Thet et al. 2016; Engebretsen et al. 2010). Breastfeeding is described as entirely the woman's duty (Engebretsen et al. 2010). Women often are the only family members that attend medical appointments and are the only ones who directly receive IYCF recommendations (Njunga and Blystad 2010; Fletcher, Ndebele, and Kelley 2008). Because women are the primary individuals who go to the clinics, they generally make the decision when to start breastfeeding and when to begin weaning (Saadeh, Henderson, and Vallenas 2005; Matovu et al. 2008).

In addition to the mother, grandmothers are also described as key decision makers or advisors and often responsible for taking care of children while the mother is at work (Bezner Kerr et al. 2008; Aubel 2012; Mukuria et al. 2016). In some instances, mothers stated that the older women had more power and authority when it came to IYCF decision-making than the mothers themselves (Bezner Kerr et al. 2008).

In general, husbands know less about the specifics of child feeding recommendations than mothers and grandmothers (Thet et al. 2016). However, men tend to view breastfeeding favorably but exclusive breastfeeding with skepticism. A prominent barrier to exclusive breastfeeding is the belief amongst men and women that EBF wouldn't provide sufficient food for babies (Engebretsen et al. 2010; Thet et al. 2016). In one study, men tended to associate exclusive breastfeeding with poverty and the lack of ability to buy complementary food (Engebretsen et al. 2010). In terms of IYCF, men see their primary role as to provide food and monetary support to their family (Thet et al. 2016; Engebretsen et al. 2010). The husbands also disclosed that in their free time, they might assist with feeding the children and babysitting. However, their ability to care for the children in those respects was limited by work responsibilities and the mother, or grandmother, remained the primary child caregiver and IYCF decision-maker (Thet et al. 2016; Mithani et al. 2015)

In the literature, there is little information regarding the role of husbands in IYCF decision-making within the context of the new Option B+ PMTCT recommendations. There is also little research into the husband's perspectives of their roles in IYCF feeding and the clinic advice. Additionally, there is little information regarding the women's perspectives of their roles within the context of the newly implanted Option B+ PMTCT. This study aims to fill the gap in the literature by collecting data on IYCF decision-making and practices from husband-wife pairs in which the wife was either enrolled in the Option B+ PMTCT Program or had dropped out. This

study has two primary aims: (1) to explore husbands' and wives' perceptions of their roles in IYCF decision-making and (2) to delineate the factors that both husbands and wives perceive as influential in IYCF decision-making.

## **METHODS**

### *Study Overview*

This qualitative study took place in Lilongwe District, Malawi from June 2014-January 2015. In-depth interviews were conducted with HIV-infected women enrolled in Option B+ PMTCT, women who had dropped out of the program, and their respective husbands.

### *Setting*

We collected data in two urban and two rural government clinics in the Lilongwe District. These clinics were selected to represent rural and urban areas as well as larger and smaller clinics in order to improve transferability of the results (Golafshani 2003). The interviewed women and their husbands lived within the catchment areas of the clinics.

### *Sample*

Women were eligible to participate if they were HIV-infected,  $\geq 18$  years old, had a child  $< 24$  months, and were currently participating in the Option B+ PMTCT program or had dropped out of the program  $> 60$  days ago. A total of 30 interviews were conducted in this study. We interviewed 15 women including 6 women

currently enrolled in the Option B+ PMTCT program and 9 women who had dropped out of the program, labeled henceforth as defaulters. The husbands in this study were contacted only if their wives gave us permission to be in touch with them. The husbands were not always the biological fathers of the children, but were the primary male figure in the wives' and children's lives.

### *Data Collection*

Four Malawian research assistants conducted the in-depth interviews. The question guides for both the husbands and wives included sections on HIV disclosure, reactions to HIV diagnosis, husbands' and wives' roles in IYCF, IYCF decision-making, husband support in feeding, problems encountered in feeding, and general understanding of the Option B+ PMTCT program. The interviews were digitally recorded, transcribed verbatim in Chichewa, and translated into English.

### *Data Analysis*

English transcripts were uploaded into Dedoose (Version 5.0.11), where they were coded and analyzed using thematic content analysis (Gibbs 2007). The interviews were coded by the first author and two research assistants in two rounds. In the first round, deductive codes were applied based upon the key domains in the interview guides. During the second round of coding, we utilized inductive codes based on themes that had arisen during the initial round of coding. The research team met on a weekly basis to discuss the coding process, alter the definitions of codes as needed, and review emerging themes. Following the two rounds of coding,

descriptive summaries of the coded data for each interview were placed into a data matrix in Microsoft Excel to facilitate analysis and selection of illustrative quotes (Miles and Huberman 1994).

## **RESULTS**

The average age of the women and men interviewed was 27.8 and 35 years, respectively. The average age of the women's youngest child was 10.9 months. The women had an average of 3 children. All of the interviewed women stated that they were married, with the exception of one. Nine of the women learned about their HIV status during antenatal visits and six found out during other clinic visits. Most of the women, both those in PMTCT and the defaulters, disclosed their HIV status to their husbands on the same day they were tested, or had told them before they were married. Only one woman hid her status from her husband until he found her medicine. Five of the husbands of women in the PMTCT program were HIV positive, and one had never been tested. Seven of the husbands of women who had defaulted were HIV positive and two had been tested negative.

The key themes that emerged were: wives' roles in IYCF, husbands' roles in IYCF, perceptions of clinic advice, and the food insecurity in IYCF. This study compared results of husband-wife pairs by the woman's PMTCT participation status, and found only a few differences. These differences are highlighted, but elsewhere the data from both groups are combined.

### *Wife's Role in IYCF*

In general, the women in PMTCT saw themselves as the primary decision-makers regarding feeding decisions, as this discussion with a participant mother of an 8-month child (WP001) indicates:

*Interviewer: And I would like to know who made the decision pertaining to when to start giving the child liquids apart from breast milk, who made this decision?*

*Response: Me.*

*I. You?*

*R. Yes.*

*I. Fine, what about concerning giving the child food, who made that decision?*

*R. It's me, too.*

*I. And no one else was involved?*

*R. Yes.*

Four of the women who had defaulted also saw themselves the primary decision-makers. Three of the women who defaulted cited other individuals, including the wife's mother, uncle, or husband, as the primary decision-makers. In all instances, the women said that they felt good about the involvement of other individuals. One defaulter with a 20-month child (WD052) explained:

*Interviewer: Who made the decision on when to wean the child completely?*

*R: My uncle.*



*I: Your uncle, so how did you feel about his involvement in making this decision?*

*R: I thought he had chosen the right path for me.*

In general, the husbands were in agreement with their wives' perceptions and agreed that women were the primary care-takers of the child. One husband of a defaulter (HD070) explained that feeding was the woman's job.

*Interviewer: "Do you assist her in taking care of the child?"*

*Response: "Sometimes I bathe the child, but when it comes to feeding then it's her role."*

#### *Husband's Role in IYCF*

All of the men stated that they provide support in buying complementary foods for the child and some also purchase food specifically for the breastfeeding mother. Some of the commonly bought food items for children were maheu (a maize-based drink), maize flour, soya flour, yogie (liquid yogurt), cabbage, fruits, infant formula, milk, and groundnuts. For example, one defaulter with a 23 month child (WD049) stated, "*When [my husband] finds money, he buys soya so that I can prepare porridge for the child, and he also buys orange squash [type of soda] and bananas.*" Nearly all husbands and wives were in agreement about the financial responsibility of husbands to procure food. One husband of a woman in PMTCT (HP081) said, "*I make sure that when I have money I give [it to my wife] to buy food for the child. I buy yogie for him because he loves yogie.*" In addition to purchasing food for the child,

many husbands felt responsible to provide food for their wives so that they would be able to breastfeed. One husband of a defaulter (HD068) said, *“When I have money I make sure I buy food for her so that she can have enough to eat making it possible for her breasts to produce enough milk.”*

In addition to monetary support, nearly all of the husbands stated that they offer verbal support about IYCF to their wives, including reminders to feed the child and to listen to IYCF advice from the clinic. The interviewed women, both those in the program and those who had defaulted, described their husbands offering this type of support. With the exception of two defaulters, all of the women stated that their husbands encouraged them to listen to the advice on IYCF provided by health workers and to feed the child frequently. A defaulter with a 9 month child (WD047) explained, *“[My husband] encourages me to be breastfeeding exclusively, and sometimes when I’m busy he tells me to stop just whatever I’m doing to breastfeed the child even when she is not crying.”*

Although women were described as the primary caregivers and IYCF decision makers, some of the husbands of women in PMTCT and defaulters stated that they assisted their wives with physically feeding the child when she was busy with other responsibilities. One husband of a defaulter (HD065) explained, *“If my wife is busy, then I feed the child or when the clothes are dirty I wash them. When she is busy and it’s time to feed the child, I prepare the porridge and feed the child.”*

### *Perceptions of Clinic Advice*

None of the husbands in this study were able to accompany their wives to the clinic, so they tended to get information about IYCF from their wives following their return from clinic visits. One husband of a defaulter (HD073) explained:

*Interviewer: Did you accompany your wife when she was receiving advice concerning breastfeeding?*

*Response: No, I wasn't there.*

*I: So how did you receive the advice after she explained to you about the advice?*

*R: I agreed, because she was the one who went to the clinic.*

Because husbands learned about IYCF through their wives, they were frequently unclear about the specifics of the feeding recommendations. A few of the husbands of defaulters expressed skepticism over the advice from the hospital and sought other sources of advice. Three of the husbands were concerned that following the IYCF advice provided at the clinic would leave the child hungry. The following is an exchange between the interviewer and a husband of a defaulter (HD066) who was confused about the advice from the clinic and decided to intervene:

*Interviewer: Were you in agreement with what she was advised?*

*Response: I agreed, but some of the advice was not good.*

*I: Why?*

*R: They told her to breastfeed the child after 3 hours and this was not good... so my sister and I decided to buy milk for the child.*

There were two husbands of women currently in PMTCT who were confused regarding IYCF advice and sought out additional advice on their own accord. One husband of a wife currently in PMTCT talked about IYCF with a health worker who came to their house and another husband went to the clinic on his own to receive advice regarding child feeding.

While there were exceptions as noted above, a majority of the women, both those enrolled PMTCT and those who had defaulted, stated that their husbands encouraged them to follow the clinic advice and encouraged them to breastfeed. Most of the women held the clinic advice as the most important advice that they received. For example, a woman in PMTCT with a 2-month child (WP018) explained,

*Interviewer: Of the people who gave you advice on how to feed your child, whose advice was most influential?*

*Response: The nurse*

*I: Why?*

*R: Because the nurse knows everything about the human body.*

### *Food Insecurity*

Although husbands were expected to purchase food for children and other family members, poverty and food insecurity often made it difficult for them to fulfill this role. Three of the six husbands of women in PMTCT explicitly mentioned that it was difficult to provide monetary support for IYCF due to financial struggles. All of the interviewed husbands of defaulters, with the exception of one, reported regular

household food insecurity ranging from 2 times a week to 2-3 times a month. This interchange between an interviewer and husband of a woman in PMTCT (HP084) illustrates the frequency of food insecurity:

*Interviewer: Is there a time that you have no food or no money to buy food?*

*R: Yes. I live in a rented house and the money I receive is not enough to support myself.*

*I: How often does this occur?*

*R: Almost every month.*

*I: How many times in a month?*

*R: The last two weeks of a month.*

*I: In the 2 weeks, how many days?*

*R: 12 days.*

## **DISCUSSION**

This study provides a unique perspective on IYCF decision-making by obtaining data from husband-wife pairs. With a few exceptions, this study found that husbands and wives in Lilongwe had similar views related to IYCF practices and decision-making. Further, few differences were detected between husband-wife pairs based on the wife's participation in the PMTCT program.

Similar to other research, this study revealed heavily gendered roles in IYCF practices, but adds to the literature by examining husbands' and wives' roles in the

context of HIV (Thet et al. 2016; Chinkonde, Hem, and Sundby 2012; Njunga and Blystad 2010; Bezner Kerr et al. 2008). The primary difference between the literature and this study's findings is the role of the mother in IYCF. In several other studies, both those that include HIV+ and HIV- women, mothers cite grandmothers or husbands as the primary decision-makers in regard to IYCF decision-making (Chinkonde, Hem, and Sundby 2012; Bezner Kerr et al. 2008; Aubel 2012, 19-35). However, there is also literature supporting the fact that women are the primary IYCF decision-makers and most men view child feeding and PMTCT programs as topics solely for women (Mullany 2006; Njunga and Blystad 2010; Kerr, Berti, and Chirwa 2007). In this study, a majority of the wives and their husbands refer to the mother as the primary decision-maker and caretaker of the child.

Similarly, both husband and wife interviews indicated that the primary role of the men was to offer monetary support for food purchases and verbal support to remind their wives about IYCF practices. These findings regarding the husband's roles are consistent with other studies where information on male roles in IYCF was obtained (Bezner Kerr et al. 2008; Thet et al. 2016). Interviews with both husbands and wives in our study revealed that food insecurity proved to be one of the biggest barriers in husbands' providing for their families. In 2015, the World Bank ranked Malawi as one of the poorest countries in the world (The World Bank 2015) .

Chronic and seasonal food insecurity are common in Malawi, and tend to be more pronounced in families affected by HIV (Mtika 2001). Research conducted in other low and middle-income countries describes financial barriers to procuring food for

IYCF from a mother's perspective while our study adds the perspective of the husband (Thet et al. 2016; Fletcher, Ndebele, and Kelley 2008; Thairu et al. 2005b).

In this study, some husbands were unclear about the specifics of IYCF recommendations. Some of them were unsure about the length of time necessary for EBF, the definition of EBF, the role of ART, and the importance of EBF. This finding is consistent with the literature that includes perspectives of the men on EBF (Thet et al. 2016; Aubel 2012). When asked specifics about breastfeeding, husbands generally were less familiar with the benefits (Thet et al. 2016). Husbands' lack of IYCF information is likely because they typically do not accompany their wives to the clinic and tend to learn about IYCF based on what their wives tell them they have heard from health workers (Njunga and Blystad 2010). This may explain, in part, why husbands deferred to their wives in decisions regarding child feeding. Husbands also leave feeding decisions to their wives because women are responsible for feeding and taking care of the child. In general, it is perceived, by both the women and husbands that the responsibility for physical care of the child falls solely on the mother. Many of the husbands did acknowledge that if their wife was busy, they could help, but it is the mother's responsibility to care for the child. This fits with other evidence in the literature that husbands do assist with physical care of the children if the mother was busy (Thet et al. 2016). In general however, most husbands said their ability to help their wives was limited by their own work responsibilities (Thet et al. 2016; Aubel 2012; Mullany 2006).

Other studies in Malawi and elsewhere in sub-Saharan Africa indicate that grandmothers play an important role in IYCF decision-making and practices (Aubel 2012; Bezner Kerr et al. 2008). For many mothers, grandmothers are not only a source of IYCF information, but also alternate caregivers who frequently care for and feed young children within their families (Aubel 2012). We intended to interview grandmothers as part of this study, but found that few of our female participants lived near their own mothers. Consequently, the women explained that grandmothers had little influence on feeding practices in our study population.

Although our study was conducted within in the context of Malawi's PMTCT Option B+ program, the findings are consistent with some of the literature that was conducted outside the HIV context (Thet et al. 2016; Kerr, Berti, and Chirwa 2007). This could indicate that the roles of husbands and wives in IYCF decision-making vary little between HIV+ and HIV- contexts. More research is needed to determine what role, if any, a woman's HIV diagnosis has upon husband involvement in IYCF decision-making.

This study had one primary limitation related to the transferability of the findings (Golafshani 2003). Our interviews included only individuals in the Lilongwe District of Malawi. In an effort to mediate this limitation, the clinics that were selected were in both urban and rural settings.



In conclusion, husband involvement in IYCF within PMTCT programs is important, but strategies are needed to encourage their participation so that they can offer women in the program greater support. There are several studies that have explored different strategies for increasing husbands' attendance at PMTCT clinic appointments (Kalembo et al. 2013; Auvinen, Suominen, and Valimaki 2010). Some strategies to improve male involvement include: letters of invitation to the husbands encouraging them to accompany their wives to the next clinic appointment, the use of male nurses at clinics, and weekend clinic hours (Kalembo et al. 2012). These types of interventions encourage husbands to go to clinic visits, but additional research is needed to determine if clinic visits are sufficient incentive for husbands to become more involved with IYCF decision-making.

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